

ATTORNEY DOCKET NO. 19308.0021U1  
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***In the Claims:***

The following listing of claims replaces all prior versions and listings of claims in the application:

- 1           1.       (Previously presented)   A power control system for a power amplifier,  
2       comprising:  
3           a first power control loop configured to provide a control signal comprising:  
4               a variable attenuator for adjusting a gain applied to a signal in the first power  
5           control loop;  
6               a detector for providing a direct current (DC) baseband signal representing an  
7           output of the power amplifier;  
8               a first comparator for comparing the DC baseband signal to a first reference  
9           signal and generating an error signal;  
10          a second power control loop comprising:  
11               a second comparator for comparing the error signal to a second reference  
12           signal and generating a secondary control signal capable of controlling the variable  
13           attenuator.
- 1           2.       (Original)       The power control system of claim 1, wherein the secondary  
2       control signal is used to control the variable attenuator to reduce attenuation in the first  
3       power control loop.
- 1           3.       (Original)       The power control system of claim 2, wherein the variable  
2       attenuator is a variable gain amplifier (VGA) having a maximum gain of zero dB.
- 1           4.       (Original)       The power control system of claim 1, further comprising an  
2       adjustable buck voltage converter responsive to the secondary control signal, the adjustable  
3       buck voltage converter configured to reduce a power supplied to the power amplifier in  
4       response to the secondary control signal.

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1           5.     (Original)     The power control system of claim 4, wherein the adjustable  
2     buck voltage converter reduces supply current to the power amplifier until saturation of the  
3     power amplifier is detected.

1           6.     (Original)     The power control system of claim 1, wherein the secondary  
2     control signal is used to control the variable attenuator to reduce attenuation in the first  
3     power control loop, and further comprising:  
4             an adjustable buck voltage converter responsive to the secondary control signal, the  
5     adjustable buck voltage converter configured to reduce the power supplied to the power  
6     amplifier in response to the secondary control signal until saturation of the power amplifier  
7     is detected.

1           7.     (Currently amended)     A method for operating a power control loop for a  
2     power amplifier, comprising:  
3             measuring a power level of a signal output from the power amplifier;  
4             generating an error signal by comparing the power level of the signal output from the  
5     power amplifier to a first reference signal;  
6             generating a primary control signal responsive to the error signal in a primary control  
7     loop;  
8             deriving a secondary control signal responsive to the error signal and a second  
9     reference signal; and  
10            using the secondary control signal to control a gain applied to the signal output from  
11     the power amplifier.

1           8.     (Canceled)

1           9.     (Previously presented)     The method of claim 7, wherein the gain applied to  
2     the signal output from the power amplifier is controlled by a variable attenuator, the variable  
3     attenuator configured to receive the signal output from the power amplifier.

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1           10.   (Original)    The method of claim 7, further comprising:  
2           using the secondary control signal to control an adjustable buck voltage converter,  
3   the adjustable buck voltage converter configured to provide a supply current to the power  
4   amplifier.

1           11.   (Original)    The method of claim 10, wherein the adjustable buck voltage  
2   converter reduces supply current to the power amplifier until saturation of the power  
3   amplifier is detected.

1           12.   (Original)    The method of claim 7, further comprising:  
2           using the secondary control signal to control a gain applied to the signal output from  
3   the power amplifier; and  
4           using the secondary control signal to control an adjustable buck voltage converter,  
5   the adjustable buck voltage converter configured to provide a supply current to the power  
6   amplifier, wherein the adjustable buck voltage converter reduces supply current to the power  
7   amplifier until saturation of the power amplifier is detected.

1           13.   (Previously presented)   A system for operating a power control loop for a  
2   power amplifier, comprising:  
3           means for measuring a power level of a signal output from the power amplifier;  
4           means for generating an error signal by comparing the power level of the signal  
5   output from the power amplifier to a first reference signal;  
6           means for generating a primary control signal responsive to the error signal in a  
7   primary control loop;  
8           means for deriving a secondary control signal responsive to the error signal and a  
9   second reference signal; and  
10          means for using the secondary control signal to control a gain applied to the signal  
11   output from the power amplifier.

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1 14. (Cancelled)

1 15. (Previously presented) The system of claim 13, wherein the gain applied  
2 to the signal output from the power amplifier is controlled by a variable attenuator means,  
3 the variable attenuator means for receiving the signal output from the power amplifier.

1 16. (Original) The system of claim 13, further comprising:  
2 means for using the secondary control signal to control an adjustable buck voltage  
3 converter means, the adjustable buck voltage converter means for providing a supply current  
4 to the power amplifier.

1 17. (Original) The system of claim 16, wherein the adjustable buck voltage  
2 converter means reduces supply current to the power amplifier until saturation of the power  
3 amplifier is detected.

1 18. (Original) The system of claim 13, further comprising:  
2 means for using the secondary control signal to control a gain applied to the signal  
3 output from the power amplifier; and  
4 means for using the secondary control signal to control an adjustable buck voltage  
5 converter means, the adjustable buck voltage converter means for providing a supply current  
6 to the power amplifier, wherein the adjustable buck voltage converter means reduces supply  
7 current to the power amplifier until saturation of the power amplifier is detected.